

03050110-050

(*Cedar Creek*)

General Description

Watershed 03050110-050 is located in Richland County and consists primarily of *Cedar Creek* and its tributaries. The watershed occupies 68,483 acres of the Sandhills and Upper Coastal Plain regions of South Carolina. The predominant soil types consist of an association of the Dothan-Norfolk-Chastain-Marlboro-Tawcaw series. The erodibility of the soil (K) averages 0.20 and the slope of the terrain averages 3%, with a range of 0-15%. Land use/land cover in the watershed includes: 44.0% forested land, 23.5% agricultural land, 23.3% forested wetland (swamp), 4.1% barren land, 3.8% urban land, 0.9% water, and 0.4% nonforested wetland (marsh).

The headwaters of Cedar Creek flow through Westons Pond, Harmons Pond, Morrells Pond, Clarkson Pond, and Duffies Pond before accepting the drainage of Reeves Branch and Myers Creek (Cabin Branch, Horsepen Branch, Goose Branch). After the confluence with Myers Creek, Cedar Creek flows through Wise Lake and Weston Lake and accepts drainage from Dry Branch before entering the Congaree River. The lower section of the watershed, from Wise Lake to the river, contains a large portion of the Congaree National Park, a wetland preserve. There are a total of 147.3 stream miles and 576.7 acres of lake waters in this watershed, all classified FW.

Surface Water Quality

<u>Station #</u>	<u>Type</u>	<u>Class</u>	<u>Description</u>
C-578	BIO	FW	MYERS CREEK AT SR 734
C-069	S/SEDM/BIO	FW	CEDAR CREEK AT S-40-66
C-071	BIO	FW	CEDAR CREEK AT S-40-734
C-075	P/INT	FW	CEDAR CREEK S OF S-40-734 AT OLD USGS GAGING PLATFORM

Cedar Creek - There are three SCDHEC monitoring sites along Cedar Creek. These sites are part of a blackwater system, characterized by naturally low pH and dissolved oxygen concentrations. Although pH excursions were noted, they were typical of values seen in such systems and considered natural, not standards violations. At the upstream site (*C-069*), aquatic life uses are fully supported based on macroinvertebrate community data. A significant decreasing trend in five-day biochemical oxygen demand suggests improving conditions for this parameter. Prior to 2001, this was a secondary monitoring station and sampling was intentionally biased towards periods with potentially low dissolved oxygen concentrations. Recreational uses are partially supported at this site due to fecal coliform bacteria excursions. At the midstream site (*C-071*), aquatic life uses are also fully supported based on macroinvertebrate community data. At the downstream site (*C-075*), aquatic life uses are fully supported. There is a significant increasing trend in pH, which suggests changing conditions in the stream. P,P'DDE, a metabolite of DDT, was detected in the 1997 sediment sample and P,P'DDT was detected in the 1997 and 1999 samples. Although the use of DDT was banned in 1973, it is very persistent in the environment. Di-N-butylphthalate and benzoic acid were detected in the 1999 sediment sample and a very high concentration of cadmium was measured in 2000. Significant decreasing trends in five-day

biochemical oxygen demand and turbidity suggesting improving conditions for these parameters.
Recreational uses are fully supported at this site.

Myers Creek (C-578) - Aquatic life uses are fully supported based on macroinvertebrate community data.

Groundwater Quality

<u>Well #</u>	<u>Class</u>	<u>Aquifer</u>	<u>Location</u>
AMB-047	GB	MIDDENDORF	HOPKINS

NPDES Program

Active NPDES Facilities

<i>RECEIVING STREAM FACILITY NAME PERMITTED FLOW @ PIPE (MGD)</i>	<i>NPDES# TYPE COMMENT</i>
CEDAR CREEK SC AIR NATL. GUARD/MCENTIRE AB PIPE #: 001, 002 FLOW: M/R	SC0000701 MINOR INDUSTRIAL
CEDAR CREEK U.S. ARMY/FORT JACKSON PIPE #: 001 FLOW: 0.05	SC0003786 MINOR INDUSTRIAL
CEDAR CREEK CEDAR CREEK MHP PIPE #: 001 FLOW: 0.01575	SC0032018 MINOR DOMESTIC
CEDAR CREEK TRIBUTARY RICHLAND DISTRICT I/GADSDEN ELEM. PIPE #: 001 FLOW: 0.01	SC0031526 MINOR DOMESTIC
CABIN BRANCH PINEY GROVE UTILITIES/FRANKLIN PARK SD PIPE #: 001 FLOW: 0.04	SC0031399 MINOR DOMESTIC
CABIN BRANCH TRIBUTARY RICHLAND DISTRICT I/HOPKINS JR HIGH PIPE #: 001 FLOW: 0.025	SC0031500 MINOR DOMESTIC
HORSEPEN BRANCH RICHLAND DISTRICT I/HOPKINS ELEM. SCHOOL PIPE #: 001 FLOW: 0.012	SC0031496 MINOR DOMESTIC

Nonpoint Source Management Program

Land Disposal Activities

Land Applications

LAND APPLICATION
FACILITY NAME

PERMIT #
TYPE

SPRAYFIELD
MANCHESTER FARMS

ND0068969
INDUSTRIAL

Growth Potential

There is a low to moderate growth potential for this watershed, which contains a portion of the City of Columbia. The area is predominately rural with small residential areas and an industry. U.S. Highway 378 and Bluff Road (Highway 48) cross the watershed, as does a rail line. The area adjacent to the City of Columbia (Garners Ferry/Leesburg Road) has the only available water and sewer service, and is the primary area of growth in the watershed. A waterline was extended to a portion of the Town of Hopkins due to contaminated groundwater.